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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/862,484

05/23/2001

Feng-Ting Pai

0941-0261P-SP

8958

2292

7590

03/21/2003

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EXAMINER

SHAPIRO, LEONID

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 03/21/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

2

# Office Action Summary

Application No.

09/862,484

Applicant(s)

PAI ET AL.

Examiner

Leonid Shapiro

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2673

***Drawings***

1. The drawings are objected to because:

Figs.3-4 identical to Figs. 4-6 and, therefore redundant. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.

Vertical blank period VB (See page 6, Line 1 of the specification) is not shown Fig.7.

The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities: On page 5, Line 5 stated: " in DE mode, the vertical synchronizing signal generated from decoding the signal DE instead of vertical blank period". In the next sentence in Line 7 on the same page stated: "at the rising edge or falling edge of a vertical synchronizing signal", which is not existing in DE mode, according to Fig. 8.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 rejected under 35 U.S.C. 102(b) as being anticipated by Admitted Prior Art (APR).

Art Unit: 2673

As to claim 1, APR teaches a method of processing signals of a timing controller of a liquid crystal display module, comprising the steps of: receiving a data enable signal DE which has a vertical blank period (See Fig. 3-4, items DE, VB, in description See from page 1, Line 27 to page 2, Line 6); generating a gate clock signal CPV which has a plurality gate clock cycles C1-Cn (See Fig. 3-6, item CPV (Fig. 4 has gate clock CPV which could be divided clock cycles C1 to Cn), in description See page 2, Lines 4-24); generating a plurality of gate-on enable signals OE simultaneously according to the plurality of gate clock cycles C1-Cn of gate clock CPV (See Fig. 3-6, item OE, in description See page 2, Lines 4-24); Generating start vertical signals STV (which could be divided in two signals ST1 and ST2) before the end of the vertical blank period VB after at least a gate clock cycle C1 during vertical blank period VB (See Fig. 3-6, items ST1, ST2, in description See page 2, Lines 4-6).

As to claim 2, APR teaches start vertical signals STV are generated after at least a third cycle C3 after start VB during the vertical blank period VB (See Fig. 3-6, items STV1, STV2, in description See page 2, Lines 4-6).

As to claim 3, APR teaches pausing outputting CPV, STV, and OE till the end of the vertical blank period VB (See Fig. 3-6, items OE, CPV, ST1, ST2, in description See page 2, Lines 4-24).

As to claim 4, as best understood by the examiner, APR teaches a first start vertical signal STV1, for determining a start scan location of a frame; and a second start vertical signal STV2, for offsetting flicker and display brightness of the liquid crystal display (See Fig. 3-6, items ST1, ST2, in description See page 2, Lines 4-6).

Art Unit: 2673

As to claim 5, as best understood by the examiner, APR teaches start vertical signals STV uses only a first start vertical signal STV to determine a start location of a frame (See Fig. 3-6, item STV, in description See page 2, Lines 4-6).

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Schiefer et al. (US Patent No. 6,177,922 B1) reference discloses multi-scan video-timing generator for format conversion.

The Tachuchi et al. (US Patent No. 6,181,317 B1) reference discloses display and method for driving the display.

The Lee et al. (US Patent No. 6,288,713 B1) reference discloses auto mode detection circuit in liquid crystal display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Application/Control Number: 09/862,484

Page 5

Art Unit: 2673

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Is

March 18, 2003



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600